
OBESITY IN MISSISSIPPI

a report compiled by the POWER initiative

Report compiled by the Mississippi Department of Education's Office of Healthy Schools.
Supported by research from the Center for Mississippi Health Policy.



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INTRODUCTION

This report outlines the work supported by a grant from the National Governors Association under the *Healthy Kids, Healthy America Program*.

This program encourages governors and senior state leaders to increase physical activity, improve nutrition, and prevent obesity among America's children. Grant funding was made possible by the Robert Wood Johnson Foundation and the Centers for Disease Control and Prevention.

EXECUTIVE SUMMARY

THE PROBLEM

As of July 2009 Mississippi officially has the highest rates of childhood and adult obesity in the nation. This marks the fifth year in a row that Mississippian adults have topped this list, and the percentage of overweight children in Mississippi is a full 6.9 percent higher than second place, the largest margin between state rankings by far.

Childhood obesity rates in America have more than tripled since 1980, a statistic that doctors have coined, "The Obesity Epidemic." There is worry among experts that today's youth will be the first ever to have a shorter life expectancy than their parents.

Health issues linked to obesity are numerous and severe. Just to scratch the surface, increased risk for heart disease, stroke, and type 2 diabetes (all major drivers to our nation's skyrocketing healthcare costs) are all directly associated with weight problems. Additionally, recent studies on overweight children have revealed correlations to depression, increased likeliness to miss school, and lowered academic performance in school.

FINDING AN ANSWER

Overweight adolescents have approximately a 80 percent chance of becoming overweight adults. It is widely accepted that the best method to curb this growing problem is to encourage healthy behavior in children, because habits formed during childhood frequently continue into adulthood. Furthermore, schools serve as a common community center where children and adults can rally around a healthy cause.

Mississippi has received funding through the National Governors Association to address the high rates of childhood obesity through a multifaceted and collaborative program called Preventing Obesity with Every Resource (POWER). In response, Governor Haley Barbour appointed a task force of nine organizations and departments, led by the Mississippi Department of Education's Office of Healthy Schools, to guide the POWER project.

An environmental scan to probe the school, community, and policy initiatives needed to address childhood obesity was conducted by the State Department of Health. Using the information gathered in this initial study along with coordinated research, interviews, and the cooperation of experts in the field, the task force has compiled and ranked a solution-set of policy proposals that best combats obesity in Mississippi. The proposals are designed to work together and support each other in a coordinated front that isolates the problem and tackles it at once from many directions.

THE SOLUTION

To raise awareness, encourage better health, and provide healthier environments across the state, government departments need to continue to work together, support each other, and coordinate their efforts to make a lasting impact. We are inviting legislative heads and policy makers from all over Mississippi to analyze these findings, review the proposed programs, select the ones they are best equipped to handle, and direct resources toward this synchronized goal.

This POWER document is a useful reference tool that breaks down Mississippi's obesity problem, shares the findings of local studies, and outlines the proposed policy initiatives in order to inform those capable of making a difference. Please reference this packet to become informed on our BIG problem, and know that efficient coordinated contributions will make a BIG difference to offer our children a better and brighter future.



40%
of Mississippi children
are overweight
or obese.

A GROWING PROBLEM

Nationally, childhood obesity rates have increased steadily since 1980 with Mississippi's childhood obesity rates continually among the highest in the country. Data from the self-reported 2003 Youth Risk Behavior Surveillance System (YRBSS) of the Centers for Disease Control and Prevention showed that 31.4 percent of Mississippi's high school students were overweight or obese compared to 28.9 percent nationwide.

Eager to improve student health, researchers from the College of Health at The University of Southern Mississippi decided to develop a more accurate test that gathers data through actual measurements rather than by self-reporting. The Child and Youth Prevalence of Obesity Survey (CAYPOS) was developed, and in 2003, it was proved that childhood obesity rates were even higher than the rates the students had self-reported on the YRBSS.

When the CAYPOS measurements were collected again in 2005, children at almost every grade level showed increasing prevalence of overweight and obesity. The problem was growing.

WELLNESS RISKS

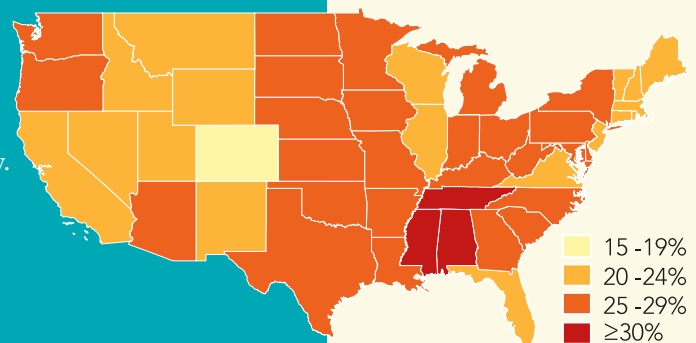
High rates of childhood obesity in Mississippi cause great concern because overweight children:

- Miss more school days and demonstrate lower academic performance
- Have a 80 percent chance of becoming overweight or obese adults
- Are at increased risk for early development of a chronic disease, leading to disability and premature death
- Have health indicators that are significant predictors of coronary heart disease in adulthood.
- Are at increased risk for type 2 diabetes, heart disease, hypertension, osteoarthritis, sleep apnea, gallbladder disease, respiratory problems, stroke, endometrial cancer, breast cancer, colon cancer, prostate cancer, depression, and other conditions


HEALTHCARE COST CONSEQUENCES

- Obesity accounts for approximately 9.1 percent of total U.S. annual medical expenditures.
- Mississippi's estimated annual healthcare cost attributed to adult obesity (in 2003 dollars) is \$757 million, of which \$223 million is cost to Medicare and \$221 million is cost to Medicaid. Nationally, childhood obesity alone costs Medicaid more than \$3 billion annually.
- Approximately 8 percent of private employer medical claims are due to overweight and obesity.
- About 27 percent of the increase in medical costs from 1987 to 2001 was due to obesity.
- Nationally, obesity accounts for a substantial part of increased disability in adults and is expected to result in an increase of 10 to 25 percent in the nursing home population by 2020.

Mississippi exhibits the highest rate of adult obesity in the nation and the highest rate of premature death. The state sits at the top of the list for most chronic disease rankings, including heart disease, hypertension, diabetes, and stroke, and has high disability rates. Given these striking health effects, it is no surprise that obesity has a significant impact on the economy of the state.



The map above illustrates the prevalence of obesity (BMI ≥ 30) among U.S. adults in 2007.



MEDICARE AND MEDICAID
SPENDING WOULD BE
8.5% AND 11.8%
LOWER,
RESPECTIVELY, IN THE
ABSENCE OF OBESITY.

WHAT IS MISSISSIPPI DOING?

Thanks to the Child Nutrition and WIC Reauthorization Act of 2004 [PL 108-265], each school had to establish a Local School Wellness Policy before the 2006-2007 school year to continue to receive funding from U.S. Department of Agriculture Child Nutrition Programs. To assist school districts, the Mississippi Department of Education (MDE) created *The Local School Wellness Policy Guide for Development*, including all the requirements necessary to comply with the federal regulations and the Mississippi statutes and standards. The guide also offers additional policy options that schools are encouraged to use while developing their specific goals based on data collection and needs assessment.

Using the attention from this spotlight on improving the health of Mississippi's students, a collaborative group of individuals and organizations succeeded in persuading the state legislature to act further. In 2006, after agreeing that vending machines play a significant role in the health of students, the legislature mandated that the State Board of Education must adopt regulations defining the products that may be sold in vending machines on school campuses and when they can be sold. The State Board of Education subsequently boldly adopted rules and regulations that phased in restrictions against the selling of unhealthy products in school vending machines.

Striving to further the focus on student health, the legislature passed the Mississippi Healthy Students Act in April 2007 (amending Mississippi Code of 1972 Annotated Section 37-13-134). An advisory committee was formed to assist the State Board of Education in developing the regulations of the Mississippi Healthy Student Act.

In October 2007, the committee submitted recommended provisions to the State Board of Education. The State Board of Education in due course adopted nutrition standards and rules and regulations for physical and health education.

As a result of efforts across the state, Mississippi was recognized in a fall 2009 report released by the Centers for Disease Control and Prevention as one of the top states regarding school health policy implementation.

THREE-STEP APPROACH TO SCHOOL WELLNESS

MDE suggests a three-step approach to developing an effective local school wellness policy. Schools are encouraged to

1. Conduct a needs assessment.
2. Develop and approve a school wellness policy.
3. Implement the policy.

MISSISSIPPI HEALTHY STUDENTS ACT

The Mississippi Healthy Students Act establishes:

- Minimum requirements for health and physical education
- A physical activity coordinator at the MDE
- Local school health councils as mandatory
- That the State Board of Education must adopt regulations that address healthy food and beverage choices
- The appointment of an advisory committee to advise the State Board of Education in developing these regulations
- That each local school board must develop a wellness policy based on a coordinated approach to school health

WHAT IS MISSISSIPPI DOING - Implementation Efforts

In response to the Mississippi Healthy Students Act, the Mississippi Department of Education, aided by local and federal funding has implemented many strategies to meet updated regulations and to support student health. Some of the most prominent strategies are listed below:

FIVE STAR FOOD GRANT	NUTRITION INTEGRITY GRANT	COMMITTED TO MOVE GRANT	HEALTH IN ACTION
<p>Through funding from The Bower Foundation, schools are awarded a Five Star Food Grant to increase consumption of fruits and vegetables in Mississippi public schools. This initiative awards schools monies to purchase sectionizers and slicers for making food attractive in service lines and for focusing on healthful food choices for children in the school setting. In addition, the food service managers attend a chef-led training session on how to use the equipment, including hands-on demonstrations. Training is disseminated to other food service staff through a partnership with Mississippi State Extension Service professionals.</p> <p><i>During the 2007-2008 school year, over 46,000 students were reached through this initiative in 80 schools from 25 school districts. Thirty-three schools from 11 school districts participated in the second year of the program during the 2008-2009 school year.</i></p> 	<p>The Nutrition Integrity Grant initiative was designed to remove fryers from school kitchens and replace them with combination oven steamers. Other goals were to promote and share information on the feasibility and cost of removing fryers and installing combination oven steamers, to eliminate fried foods in a period of five years, and to provide healthier school meals by reducing the amount of calories, fat, saturated fat and trans fat served. A joint project of the Mississippi Department of Education's Office of Healthy Schools and The Bower Foundation, this grant also includes the development of a step-by-step guide to a successful implementation.</p> <p><i>Since 2006, the beginning of the Nutrition Integrity Project, a total of 104 combination oven steamers have been purchased in 41 districts, impacting approximately 64,900 children. Because of the project's tremendous success, schools throughout Mississippi are electing to replace fryers with combination oven steamers, even without the benefit of grant funding.</i></p>	<p>The Committed to Move Grant project provides school districts curriculum, training, and up to \$9,400 to purchase physical education equipment and resources to assist in complying with the Mississippi Healthy Students Act. The grant, funded by The Bower Foundation, enables school districts to purchase approved equipment and supplemental materials to support the implementation of a quality physical education program based on the Mississippi Standards for Physical Education. Grantees participate in Physical Best and FITNESSGRAM training and conduct biannual fitness assessments of their students.</p> <p><i>Twenty-five schools participated in the grant during the 2007-2008 school year, and 21 schools participated during the 2008-2009 school year, reaching a total of 13,500 students. The evaluation of this program is a component of the comprehensive evaluation of the Mississippi Healthy Students Act being conducted by the Center for Mississippi Health Policy.</i></p>	<p>Through the Health in Action initiative, teachers now have free access to an online database of 1,300 health education and physical education lesson plans. The plans are developed by Mississippi teachers and are aligned to national and state standards for health and physical education and other core content areas to provide cross-curricula instruction. There are also lesson plans available to promote safe routes to school. The Office of Healthy Schools has the capability to communicate with all Health in Action registered guests via mass e-mail.</p> <p><i>As of June 2009, there were 1,900 registered individuals representing 36 states. The lesson plans found on Health in Action are based on monthly themes that support the eight components of coordinated school health. The Office of Healthy Schools has developed sample press releases based on these themes to provide school districts with monthly guides and health facts for communicating local school successes.</i></p>

HEALTH IS ACADEMIC— JOHN D. BOWER, M.D. SCHOOL HEALTH NETWORK

The John D. Bower, M.D. School Health Network is a joint endeavor of the Mississippi Department of Education's Office of Healthy Schools and The Bower Foundation. Its purpose is to provide in-depth preparation to local school districts for the implementation of the Coordinated School Health Program model. The intent is to enable participants to strengthen the role of health coordinators, establish local school health councils, improve school health instruction programs for all students, reconfigure the use of existing school resources, and nurture broad-based school and community support for a coordinated school health program. Network participants are selected through a competitive process.

Since 2005, 20 school districts have received funds to implement the eight components of coordinated school health.



EXCELLENCE IN PHYSICAL EDUCATION CERTIFICATION PROGRAM

The Excellence in Physical Education Certification Program is a joint program between the Governor's Commission on Physical Fitness and Sports and Mississippi Department of Education's Office of Healthy Schools. It is the Commission's desire to make this program an incentive for school districts, administrators, and teachers to offer "excellent" physical education programs. Presented as an annual award available to public and private schools, the certification officially recognizes a school's commitment to a quality physical education program. Qualified schools are recognized with a certificate, web posting on MDE's site, and press releases sent to local publications. Selected schools are also invited to a reception at the Governor's mansion. Recognized schools serve as examples to other schools and school districts throughout Mississippi to inspire others to strive towards meeting "excellent" standards in quality physical education programs.

Since 2002, there have been 116 gold awards, 112 silver, and 32 bronze have been awarded to schools across the state.

2007 TEAM NUTRITION GRANTS

The Team Nutrition Grant focused on the following strategies: establishing and maintaining school health councils, conducting a pre- and post-assessment to determine baseline data and impact of project implementation, developing nutrition and physical activity policies to promote student and staff wellness, taking the Healthier US School Challenge, and conducting nutrition and physical activities that reinforce the Team Nutrition messages.

In 2007, The Office of Healthy Schools' Child Nutrition Program awarded 20 Mississippi schools with Team Nutrition Grants. These schools are expected to promote student and staff wellness by involving parents, students, school board members, school administrators, and the community in the development of nutrition and physical wellness policies.



TEAM MISSISSIPPI: A PARTNERSHIP FOR HEALTHY FAMILIES

The Mississippi Department of Education's Office of Healthy Schools and The University of Mississippi Medical Center's Center of Excellence partnered to form TEAM Mississippi: A Partnership for Healthy Families to promote healthy eating and physical activity in families. The project was made possible by the National Center of Excellence in Women's Health at the University of California, San Francisco, and Johnson & Johnson. This partnership is based on the understanding of the relationship between the health of students and academic achievement and the role the parent plays in promoting a healthy environment in the home.

Five hundred 1st-4th graders from two schools participated in a year-long campaign to promote healthy eating habits and physical activity among families. Results proved that students receiving health information had improvements in the measured health categories compared to worsening conditions of students not being educated in health matters.

In October 2008, the Robert Wood Johnson Foundation (RWJF) awarded the Center for Mississippi Health Policy a five-year, \$2 million grant to study the impact of the Mississippi Healthy Students Act on childhood obesity. The Center uses the RWJF grant in conjunction with a Bower Foundation grant to evaluate the effectiveness of state policies aimed at preventing childhood obesity. It also works to coordinate with similar projects in five other states (Arkansas, West Virginia, Delaware, Texas, and New York) to receive funding under a RWJF initiative to evaluate childhood obesity prevention policies.

Directed by the Center for Mississippi Health Policy, the evaluation project is conducted through a collaboration with researchers at The University of Southern Mississippi, Mississippi State University, and the University of Mississippi. Following is an explanation of the measures that have been taken to assess the current state of childhood obesity in Mississippi.

THE YOUTH RISK BEHAVIOR SURVEILLANCE SYSTEM (YRBSS)

YRBSS is not funded or evaluated through this evaluation project, but its results will supplement the information collected. The YRBSS includes national, state, and local school-based surveys of representative samples of students in the 9th through 12th grades. These surveys take place every two years, usually during the spring semester. The national survey, conducted by the federal Centers for Disease Control and Prevention, provides data representative of students in public and private high schools in the United States. The state and local surveys, conducted by departments of health and education, provide data representative of public high school students in each state or local school district.

COMMITTED TO MOVE EVALUATION

College of Health
The University of
Southern Mississippi

The 25 schools selected to participate in the *Committed to Move Quality Physical Education Program* implement the *Physical Best Curriculum* and electronically document fitness (muscle strength and endurance, flexibility, aerobic capacity) and body mass index data on all students through the FITNESSGRAM. Data are being collected on individual students over five periods – spring 2008, fall 2008, spring 2009, fall 2009, and spring 2010. Data will be matched with academic performance records to study the relationship between fitness and academic performance.



SCHOOL WELLNESS POLICY PRINCIPAL SURVEY

College of Health
The University of
Southern Mississippi

Principals of all public schools in Mississippi are surveyed every two years by researchers from the College of Health at the University of Southern Mississippi to gauge the implementation of the federal Child Nutrition and WIC Reauthorization Act of 2004 and the Mississippi Healthy Students Act of 2007. The survey assesses the degree to which schools have established school wellness policies and implemented requirements of the federal and state laws and associated regulations.



SURVEY OF LOCAL & STATE-LEVEL POLICY MAKERS

*Social Science Research Center
Mississippi State University*

The goal of this survey is to assess state and local policy makers' knowledge and opinions of the Mississippi Healthy Students legislation and their support for it. The study considers state and local policy makers to include state legislators, members of the State Board of Health and State Board of Education, local school board members, school district superintendents, and local health officials. Assessing the attitudes of local policy makers is critical in ensuring that the intent of state-level childhood overweight and obesity school health policies is understood and implemented in ways that maximize the potential of primary prevention.

PARENT SURVEY

*Social Science Research Center
Mississippi State University*

The annual Parent Survey evaluates parental attitudes, changes in family environments, and changes in children's health behaviors throughout the evaluation period. The purpose is to better understand how parents feel about school health policies, how they influence those policies, and to what extent family knowledge, attitudes, practices, and constraints influence children's health and health behaviors. Documenting nutrition and physical activity patterns in the home environment is important in determining the degree to which health status changes, or a lack thereof, are due to nutrition and physical activity patterns or to alterations in the home environment.

MISSISSIPPI SCHOOL NUTRITION ENVIRONMENT EVALUATION DATA SYSTEM (MS-NEEDS)

*Department of Family and Consumer Sciences
University of Mississippi*

To obtain an independent assessment of statewide progress implementing school nutrition policies, researchers at the University of Mississippi conduct onsite evaluations of school nutrition environments at a representative sample of schools statewide. Their survey tool assesses the level of nutrition policy implementation at each school, provides a comparison between schools with different demographics, and, through repeated measurement, shows nutrition-related environmental changes over time.


CHILD AND YOUTH PREVALENCE OF OBESITY SURVEY (CAYPOS)

*College of Health
The University of Southern Mississippi*

Conducted every two years, researchers use height and weight measures gathered through the Child and Youth Prevalence of Obesity Survey to estimate the prevalence of overweight and obesity among children in Mississippi. The results of the 2007 CAYPOS provided the first signs that childhood obesity rates in Mississippi may be reaching a plateau. Although not statistically significant, the survey showed drops in obesity rates in middle

school and high school students.





HEALTHY, ACTIVE, AND WELL-
NOURISHED CHILDREN AND YOUTH
ARE MORE LIKELY TO ATTEND SCHOOL
AND ARE MORE PREPARED AND
MOTIVATED TO LEARN.

74%

OF AMERICA'S YOUTH WERE
FOUND TO BE UNFIT
IN 2004 ACCORDING TO THE CDC'S
ANALYSIS OF FITNESSGRAM DATA.

MOVING FORWARD

With the measurements reported and the crisis clearly identified, Mississippi recognizes that more needs to be done to truly change the future of the state. This is not a task for a single champion, but one that will take collaboration and cooperation—everyone working together.

In 2008, Mississippi began a life-changing course of action when the state received funding through the National Governors Association's *Healthy Kids, Healthy America Program* for a project entitled Preventing Obesity with Every Resource (POWER). The Mississippi Department of Education's Office of Healthy Schools was designated by the Office of the Governor as the lead agency for this project. Leading the way, MDE has continuously sought unity between various state departments in an effort to outline a plan of action to combat the state's overwhelming obesity problem. Under the POWER project, MDE engaged a wide range of stakeholders to identify additional opportunities for childhood obesity prevention policy development in Mississippi. Governor Haley Barbour appointed a task force to guide the project. The members of the Governor's Task Force on Childhood Obesity represented key stakeholders at the state level.

At the initiation of the project, the Mississippi State Department of Health conducted an environmental scan of childhood obesity prevention efforts in Mississippi. The report issued by the department presented information from literature reviews and key informant interviews, outlining the extent to which state and local governments, businesses, and community-based organizations were collaborating to address childhood obesity in Mississippi.

GOVERNOR'S TASK FORCE ON CHILDHOOD OBESITY

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*titles reflect position at
time of appointment in 2007*

Various representatives of key stakeholders from across the state met on April 25, 2008, at the Mississippi Department of Education to collectively brainstorm policy strategies (see list of participants in the Appendix). At the planning meeting, staff from the State Department of Health discussed the results of the environmental scan conducted by the Department that outlined the many ongoing activities in the state targeting childhood obesity and identified weaknesses in the state's overall approach, providing recommendations for improvement. The Center for Mississippi Health Policy provided the background information to familiarize participants on current policy initiatives in Mississippi, as well as reviewed policy initiatives in other states. Small group sessions resulted in a list of potential policy initiatives. Mississippi's panel of key stakeholders ranked the initiatives, indicating their top preferences. Three policy options were scored as the group's highest priorities.

The potential policy initiatives were reviewed with agency heads or their representatives from the Departments of Education; Health; Human Services; Wildlife, Fisheries, and Parks; and Transportation; and the Mississippi Development Authority. Comments and recommendations were solicited from each agency.

POTENTIAL POLICY INITIATIVES

- Require labeling of menus and prepared foods
- Improve access to supermarkets/produce by providing subsidies to stores selling fresh produce that will locate in underserved areas or, for existing stores, add more space for produce
- Establish state standards for day care centers & youth programs to promote healthy lifestyles and provide incentives to adopt standards
- Restrict advertising of unhealthy foods and use public service announcements to offer healthy messages
- Improve built environments: require sidewalks in new developments; provide incentives for communities to put sidewalks in existing developments; and require cities/counties to consider promotion of physical activity in planning/zoning actions
- Provide discounts/additional benefits for purchasing healthy foods in public benefit programs
- Require BMI reporting in schools and track over time
- Provide tax incentives to locate farmers' markets in underserved areas and change barriers in existing farm-to-school policies
- Require state government food service to serve healthy foods
- Provide tax incentives to farmers to produce more healthy foods
- Restrict trans fats in restaurants
- Restrict TV viewing time in after-school programs
- Require media to offer programs on nutrition education
- Subsidize safety improvements for local parks and recreational areas
- Encourage YMCA and other youth groups to establish policies to promote healthy environments
- Provide start-up funds to help communities establish boys/girls clubs
- Require Medicaid & insurance to cover obesity treatments
- Require communities to plan school sites with health in mind

In December 2008, the Healthy Mississippi Summit was held in downtown Jackson. Governor Haley Barbour and First Lady Marsha Barbour, along with the Mississippi Department of Education, hosted the event. Agency directors shared the stage and voiced their support for cooperative efforts to address childhood obesity prevention. Over 300 participants from state agencies, and local communities heard about the many programs and initiatives active in Mississippi at both the state and local levels. At the end of the Summit, all participants were provided with a list of policy initiatives and asked to rate their priorities. The list incorporated the highest rated items from the stakeholders' meeting as well as school-based initiatives described at the Summit.

A FOCUSED PRIORITY

The resulting ranking of the top 10 policy initiatives from highest priority to lowest was as follows:

- Improve built environments to promote physical activity in communities
- Replace fryers with combi-ovens in school kitchens
- Increase the number of school nurses in the schools
- Support comprehensive fitness testing in schools
- Improve state standards for day care centers and youth programs to promote healthy foods
- Encourage recipients of public benefit programs to purchase healthy foods
- Restrict advertising of unhealthy foods to children and/or require public service announcements that offer health messages
- Require schools to provide BMI (Body Mass Index) reports to parents
- Improve access to supermarkets/produce
- Require labeling of restaurant menus and prepared foods

Supporting rationales for the individual POWER policy initiatives with case studies demonstrating their implementation are on the following pages.



Policy Initiative No. 1

Improve Built Environments to Promote Physical Activity in Communities

THE CHALLENGE

There is growing recognition that the built environment—the man-made physical structures and infrastructure of communities—impacts health. Decisions about zoning, transportation, land use, and community design influence the distances people travel to work, the convenience of purchasing healthy foods, and the safety and attractiveness of neighborhoods for walking.

Traditionally, the decisions dealing with the built environment have been made without the consideration of public health, but over the past decade, states and communities have emphasized the importance of making design decisions in the context of the overall community. States and local communities are taking action—using zoning rules, requiring sidewalks in new developments, providing capital funding, and improving transportation and land use policies—to try to increase walking and biking opportunities and make these activities more accessible and safe.

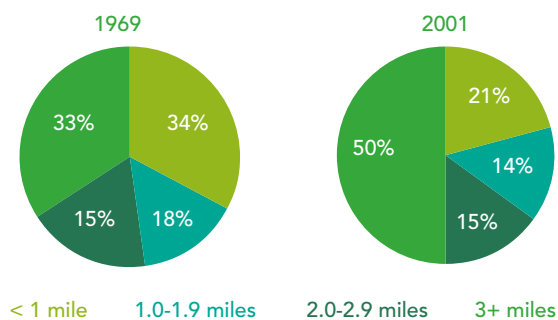
One may expect more physical activity and healthier diets among persons in communities with convenient, safe walking paths and accessible sources of fresh fruits and vegetables. On the other hand, indicators of poorer health, such as obesity, may be expected among residents of communities with high crime rates, few parks or walking paths, and little access to fresh food.

When focusing on children, research shows that being outdoors is strongly related to the level of children's physical activity. Studies have found that children who walk to school are more physically active than those who travel to school by car. However, active commuting rates in the U.S. have dropped significantly and currently range from only 5 to 14 percent. The lack of sidewalks and bike trails, long distances to schools, and the need to cross busy streets with fast-moving traffic create barriers to active commuting to school.



Today's students live further from their schools than the youth of 30 years ago. The charts at right illustrate the increase in the distance to school for children between the ages of 5 and 18.

Increase in the distance to school for children between the ages of 5 and 18.



NATIONAL SUCCESS

Two studies in California have shown promising results related to physical activity and the built environment. An evaluation of the Marin County, California, Safe Routes to Schools program that combined promotional activities with built environment changes (more sidewalks and improved street crossings) found a 64 percent increase in walking and a 114 percent increase in cycling to school. Additionally, an evaluation of statewide investments in sidewalks, crosswalks, and bike lanes in 10 California schools found that 15 percent of parents of children who passed the improvements on their way to school reported their children walked or cycled more.

MISSISSIPPI'S SUCCESS

Children walking to and from several Meridian public schools will have a safer and more enjoyable walk, thanks to a sidewalk installation program approved by the Mississippi Department of Transportation. The Mississippi Transportation Commission has approved the city's request for nearly \$740,000 in federal Safe Routes to Schools funds for the project, which will include sidewalks around Carver Junior High School, Harris Elementary School's two campuses, and

Oakland Heights Elementary. New sidewalks will also link Carver and Harris to the Boys and Girls Club, which many of the students attend after school. The project includes almost four miles of sidewalks, funding for police officers to serve as crossing guards, and an educational program through the schools to teach students about pedestrian safety.

Meridian, Mississippi's, 3,300-acre Bonita Lakes is one of the largest urban parks in the nation, offering residents and visitors a myriad of recreational opportunities just minutes from anywhere in town. To encourage more people—young and old—to participate in physical activities, the City of Meridian worked with Blue Cross Blue Shield of Mississippi to install two children's playgrounds and a series of adult fitness stations in the park. The two children's playgrounds, one located behind a picnic pavilion and the other nestled beside the smaller of the park's lakes, are geared to fit the skill levels of different ages of children. One is designed for two- to five-year-olds and the other is for five- to twelve-year-olds. The five adult exercise equipment stations are scattered along the five-mile path that meanders around the large

lake in a beautiful woodland setting. The path is used by walkers, joggers, and runners. To further enhance the outdoor experience, the city is currently implementing a \$45,000 Wildlife, Fisheries and Parks grant to install unified trail signage throughout Bonita Lakes Park.

13%

of students walked or biked to school in 2001. That number is significantly lower than the 42 percent of students who walked or biked to school in 1969.



Policy Initiative No. 2

Replace Fryers with Combi-Ovens in School Kitchens



Mississippi's School Breakfast Program had a total participation of 192,593 children, equating to 32,444,362 breakfasts served in the 2008-2009 school year.

THE CHALLENGE

In the 2008-2009 school year, Mississippi's School Lunch Program served 404,694 students a total of 68,147,157 lunches. Of those lunches, 32 percent were paid, 8 percent were reduced price, and 58 percent were free. Traditionally, schools look for ways to cook large amounts of food that kids will eat. Typically, this has meant frying food such as French fries and chicken nuggets, contributing to unhealthy eating patterns and failing to introduce critical vitamins and nutrients school children need in their diets.

Combination oven/steamers allow food to be cooked with dry convection heat, fan-assisted steam, or both, which reduces the number of calories and fat while preserving the taste. The exterior of foods can be browned and crisped, much like frying, while still retaining interior moisture without the use of cooking oils. The ovens also allow multiple items to be "oven fried" at one time without any flavor transfer between foods. Some combi-oven equipment offers significant energy savings compared to traditional cooking methods. According to the Office of Healthy Schools, replacing traditional fryers with combi-ovens in schools can improve children's health in several ways:

- *Food, including vegetables, prepared in combi-ovens looks appealing, encouraging children to enjoy healthier items.*
- *Popular "kid foods" like French fries and chicken strips are available in healthier and tasty versions.*
- *Serving baked instead of fried foods can make a significant difference in the calories, fat, and saturated fat that children consume.*

NATIONAL SUCCESS

Texas was one of the first states to begin phasing out fryers and switching to combi-ovens. The Texas Department of Agriculture released a Texas Public School Nutrition Policy to provide a healthier school environment for children. The policy requires all public schools to eliminate deep-fat frying as a method of onsite preparation for foods served as part of reimbursable school meals and a la carte options. Fried potato products such as French-fries that have been pre-fried by the manufacturer may be served as long as they are heated by a method other than deep-fat frying in the schools. These servings are not allowed to exceed 3 ounces, may not be offered more than once per week, and students can only purchase one serving at a time. Baked potato products – such as wedges, whole, or new potatoes, – that are produced from raw potatoes and have not been pre-fried, flash fried, or deep fat-fried in any way may be served without restriction. For schools that did not need equipment upgrades, the policy had to be implemented within a year. A transition period of four years was granted for those schools that required equipment upgrades.

3 million

is the total number of calories in French fries eliminated in one school year at just two of Starkville's schools that switched from fryers to combi-ovens.

MISSISSIPPI'S SUCCESS

During spring 2007, the Starkville School District, through support from the Office of Healthy Schools and the Bower Foundation, conducted a pilot project examining the feasibility of replacing fryers with combi-ovens. The school chosen was Starkville High School, with an enrollment of 1,187, a free/reduced meals rate of 62 percent, and french fries served 180 days per school year.

The Starkville School District reported that the benefits of replacing the fryers with combi-ovens have been outstanding. For starters, the combi-ovens substantially reduce the amount of calories and fat that the children consume without weakening the appeal or flavor of the food. In fact, the reports claim that a greater variety of dishes look more appetizing for longer, because food prepared in combi-ovens stay moist inside and hold well on the serving line. Also, the overall quality of school breakfast and lunch meals noticeably improved, though meal participation and extra food sales were not affected. The kitchen staff enjoyed the additional safety and sanitation of removing the fryers, because they no longer had to worry about vats of grease, slippery

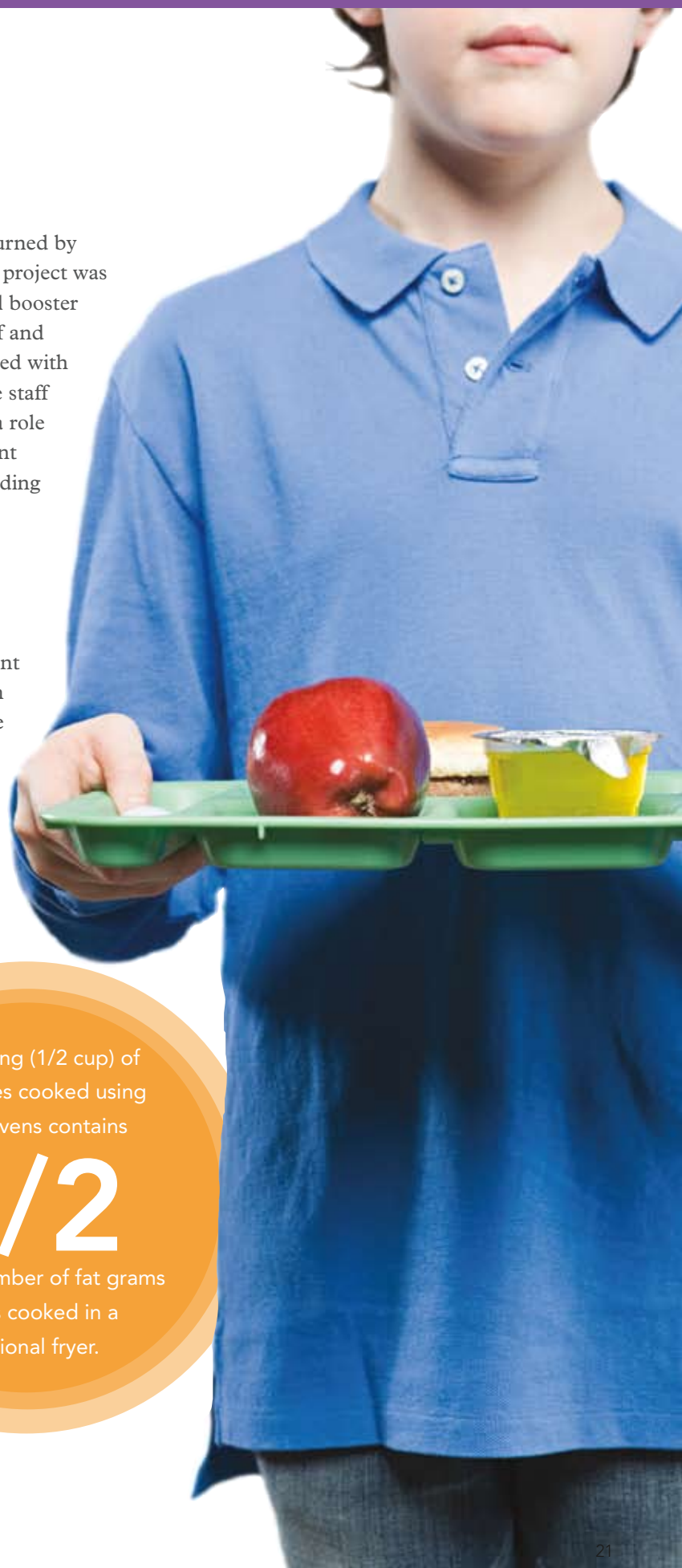
floors, or getting burned by splattering oil. The project was an incredible moral booster for the kitchen staff and employees concerned with student health. The staff was proud to play a role in improving student nutrition and providing healthier choices.

At the end of the 2008 school year, the district's child nutrition department was so pleased with the results from the pilot project that all fryers in the school district were replaced with combi-ovens.

One serving (1/2 cup) of French fries cooked using combi-ovens contains

1/2

the total number of fat grams as fries cooked in a traditional fryer.



Policy Initiative No. 3

Increase the Number of School Nurses in the Schools



In 2009, funding for school nurses in Mississippi came from the following sources: District Funds (34%), Federal Funds (27%), Hospital Funding (16%), School Nurse Intervention Program (16%), and other (7%).

THE CHALLENGE

Schools are a natural setting to influence the health and well-being of students, and the school nurse is often a child's main provider of health care. Nationally, 12 percent of students served by school nurses have no other source of regular medical care. The nature of the services provided by school nurses has become more technical and intense with the rapid increase in the number of children with highly specialized health care needs, such as obesity, attending public school.

School nurses can provide leadership in helping students develop and maintain a healthy lifestyle through the clinical setting, educational setting, and through policy development in the school environment. The school nurse can also help students deal with the problem of being overweight in a proactive manner and work to eliminate the impact of poor nutrition on learning outcomes. Mississippi's current ratio of one school nurse for every 1,136 students has improved from previous years, but it is still well short of the nationally recommended ratio of 1:750. As of 2009, 12 school districts in Mississippi still do not have any school nurses.

The National Association of School Nurses points out that school nurses have the expertise to meet the needs of children at risk of being overweight and to assist those students who are overweight in the following ways:

- *Assisting students in developing good decision-making skills related to nutrition and in establishing activity patterns to maintain normal body mass indices throughout their lives*
- *Educating students, faculty, and parents on the following:*
 - *Dietary guidelines for balanced meals that are low in dietary fat*
 - *The need for daily physical activity*
 - *Reading and interpreting dietary information on food products*
 - *Relating dietary guidelines to food preparation*
- *Initiating school policies that relate to providing a healthy school environment*
- *Supporting families as they assist their children in achieving and/or maintaining a healthy weight*
- *Identifying students who are overweight for education and encouragement in finding and using acceptable weight-loss programs*
- *Implementing and managing school-based weight-reduction programs*

MISSISSIPPI'S SUCCESS

One of the key goals in the 2007-2012 Pascagoula School District Strategic Plan is to meet the health and psychological needs of all students. To achieve this goal, one of the actions planned was to establish a health services program that would at least meet the national standard of one nurse for every 750 students. The Pascagoula School District has increased its school nursing staff from two school nurses for the 2001-2002 school year to eight school nurses for the 2009-2010 school year.

The addition of more nurses provides an opportunity to identify many more health problems that are barriers to learning and to implement interventions that assist students in becoming successful. A great success has been the development of community partnerships. The district's health services department partnered with the Mississippi Gulf Coast Children's Health Project. Twice a month, a medical mobile unit comes to the district to provide healthcare to uninsured students and students without a medical home.

The nurses identify students in need of referral and make appointments for them and their parents. The mobile unit provides a pediatrician, a pediatric nurse practitioner, and a social worker at no cost to the families. Last year, the Gulf Coast Children's Health Project also supported a Community Support and Resiliency Mobile Unit, staffed by two full-time mental health counselors and a child psychologist. These staff provided group, family, and individual counseling in the middle and high schools, as well as group counseling in the elementary schools. The school nurses coordinated all of these services.

The Cleveland School District had been without a school nurse

for approximately 20 years. The district has 10 schools and educates 3,700 children including numerous children with chronic diseases and physical and mental limitations. Through a grant from The Office of Healthy Schools, the district was able to employ a school nurse in 2008-2009.

In the past year, the Cleveland district set up a clinic to provide wellness screenings in association with Medicaid's *Cool Kids* program and educate teachers and staff on numerous chronic and communicable diseases. HIPPA-compliant medical software with a bio surveillance component was purchased to make it easier to monitor children with asthma, diabetes, food allergies, seizure

disorders, and common complaints such as sore throat, and headache. These children now have an individualized health plan designed to meet their healthcare needs. The screenings provided by school nurses speed diagnosis and treatment, decreasing the potential for further medical complications.

The school nurse has been a true child advocate for improved medical care in the school system, and the Cleveland school board recently approved the hiring of another school nurse for the district, pending funding.



85%

of students who see a school nurse are able to return to class. Having access to a school nurse keeps kids in school, strengthening the Average Daily Attendance on which school funding is based.

Policy Initiative No. 4

Support Comprehensive Fitness Testing in Schools

THE CHALLENGE

The goal of Comprehensive Fitness Testing is to assist students in recognizing good health and establishing lifelong habits of regular physical activity. The tests are a mechanism for teaching students how to apply behavioral skills such as self-assessment, goal setting, and self-monitoring and provide feedback to students, parents, and schools about students' physical fitness.

As a result of previous comprehensive fitness testing in areas across the country, studies such as the National Health Education Standards: Achieving Health Literacy and Moving into the Future: National Standards for Physical Education have already determined objectives to help guide teachers and students throughout this program. The students' knowledge of fitness is measured through pencil-and-paper examinations, while physical performance measurements are recorded on their aerobic capacity, body composition, strength, endurance, and flexibility. Some school districts may opt to require that each student's test results are sent home to parents and guardians, but the test results are not intended to be factored into report card grades.

The tests are beneficial for many reasons. They provide students with an opportunity to gain knowledge, attitudes, motor skills, behavioral skills, and confidence to participate in physical activity, which may establish active lifestyles that young people will continue into and throughout their adult lives. If parents and guardians are involved, they can help enforce fitness plans at home to meet each child's individual needs. School districts and individual schools gain informative results that determine the fitness levels of their students in order to provide effective direction for physical education programs.

In March 2006, the American Heart Association (in conjunction with a fitness testing program sponsored by the Chrysler Fund Amateur Athletic Union) reported that 9.7 million youngsters between the ages of six and 17, are getting slower in endurance running and weaker overall.

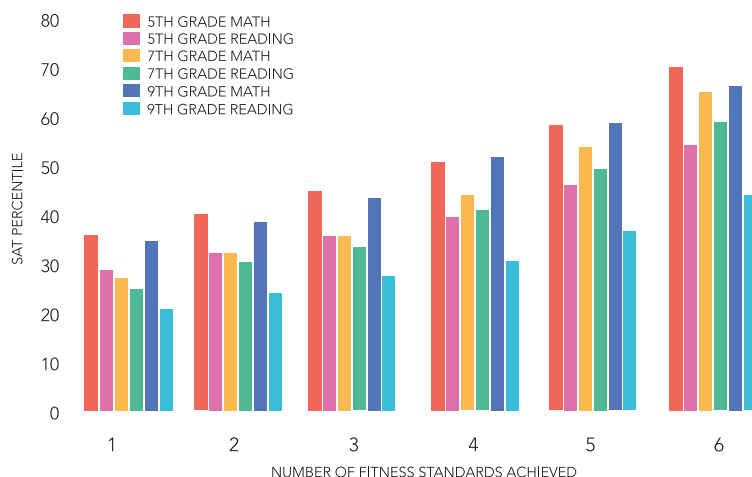
NATIONAL SUCCESS

Texas was the first state to require an annual physical fitness assessment of public school students. The Texas Education Agency has been using the results to research various correlations between health and academic performance. Research has consistently shown that increasing time in physical education and other physical activity programs in schools made a positive impact on academic performance. The results proved that advancing children's physical fitness benefits both the kids and the schools.

California requires each school district to administer a Physical Fitness Test (PFT) annually to all students in grades five, seven, and nine. The State Board of Education designated the FITNESSGRAM as the required PFT for California public schools. FITNESSGRAM uses objective criteria to evaluate fitness performance. Two levels of performance have been established for each test option: (1) in the Healthy Fitness Zone and (2) needs improvement, with the zones varying according to gender and age. The California Department



The California Department of Education studied the relationship between physical fitness and academic achievement, and the data showed that higher academic achievement was associated with higher levels of fitness at each of the three grade levels measured.



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MISSISSIPPI'S SUCCESS

At Walls Elementary School in Desoto County, Mississippi, physical education teacher, Allison Taylor implemented

the President's Challenge national fitness test in October 2008, determined to find ways to motivate many of her students to get in better physical condition. She decided to integrate 10 minutes of Project Fit during each physical education class and focused on exercises such as sit-ups, pull-ups, and flexed arm hangs to increase strength and endurance. Students also ran together in class to prepare for the mile

run and shuttle run.

In the fall, 70 students qualified for the President's Challenge National Fitness Award. Showing improvement, 150 students qualified in the spring. The students expressed that their hard work paid off in the end.

The State Board of Education Policy currently requires fitness testing in grade five and then one year of high school.



Policy Initiative No. 5

Improve State Standards for Day Care Centers & Youth Programs to Promote Healthy Lifestyles

THE CHALLENGE

National research suggests that approximately one-fourth of 2- to 5-year-old children are obese or overweight. In Mississippi, research conducted by the University of Southern Mississippi showed that more than one-third of 3- and 4-year-olds and almost half of 5-year-olds in Head Start programs were obese or overweight. For many preschool children in day care centers and youth programs, there are no dietary rules or policies, whereas the food children eat in kindergarten through 12th grade in public school is regulated for fat and salt content, among other things. Currently, an estimated 97,741 Mississippi children are enrolled in day care centers, and approximately 77,603 of these children are 5 years of age or younger. There are 1,720 current day care centers throughout the state with a combined maximum enrollment of 135,567. Standards regarding nutrition and physical activity for children at day care centers and youth programs can offer a healthy environment throughout the day, and can encourage families to adopt healthier behaviors when children are at home.



The National Association for Sport and Physical Education recommends that toddlers get at least 30 minutes of structured physical activity each day as well as an additional hour or more of unstructured physical activity. They also state that toddlers should not be sedentary for more than 60 minutes at a time except when sleeping.

NATIONAL SUCCESS

A great example of an incentive program for day cares to promote healthy lifestyles and meet recommended standards might be the state of Tennessee's "Gold Sneaker Initiative." This program is sponsored by the National Governors Association with funds from the Robert Wood Johnson Foundation. The purpose of the program is to enhance policy related to physical activity and nutrition within licensed child care facilities across Tennessee with the intent of building lifelong skills for healthy living. The Gold Sneaker Initiative encourages child care providers from both the private and public sectors to voluntarily adopt physical activity and nutrition policies established through the state licensing program.

The policies promoted under the Gold Sneaker Initiative include time allotments for physical activity, limits on sedentary activities, guidelines regarding infant and child feeding patterns, and limits on using food, candy, or drink as a child's reward.

Facilities are rewarded with certificates of achievement and prominent displays of their accomplishments, establishing them as a Gold Sneaker Initiative certified facility.



Staff attitude toward the enhanced policy implementation and maintenance of knowledge is assessed through a follow up visit. Day care facilities with a high rate of unsatisfied staff and those facilities whose staff may have shown a lack of knowledge regarding the enhanced policy implementation are identified and targeted by the Child Care Resource & Referral Network for additional assistance to ensure the facility's success. Accountability of the Gold Sneaker Initiative is assured through monitoring; the Department of Health performs site visits on at least 20 percent of all Gold Sneaker child care facilities annually.

MISSISSIPPI'S SUCCESS

The Mississippi State Department of Health realized that to fight the obesity issue, it needed to start with young children. The department was able to secure 150 free *Color Me Healthy* toolkits, to use with preschools. Designed to engage children through all five senses, the *Color Me Healthy* program contains lesson plans to be used by teachers, along with posters, stamps, games, music, and songs for lessons and activity times. The toolkit also has newsletters providing parents with kid-friendly recipes and tips on nutrition and

physical activity. The Childcare Licensure Division has been able to distribute these toolkits to facilities throughout the state during a four-hour training class.

Menu Writing 101 is a three-hour class offered through Mississippi's Childcare Licensure Division that is designed to help preschool facilities improve the quality of meals without adding costs. During the class, licensure regulations are reviewed, past menus are modified for healthier meal options, and participants engage in group discussions to plan several days of menus incorporating healthy food items that they may have not used in the past.

The *Color Me Healthy* program and the Childcare Licensure Divisions classes, have reached more than 150 childcare centers across the state.

1,000

is the total number of calories a toddler should consume daily.

One medium chocolate chip cookie can easily contain 50 calories or more.



Policy Initiative No. 6

Encourage Recipients of Public Benefit Programs to Purchase Healthy Foods



Children participating in SNAP had a significantly greater mean Body Mass Index and were significantly more likely to be obese. Starting in October 2009, WIC will allow participants to buy soy-based beverages, tofu, fruits and vegetables, baby foods, whole-wheat bread and other whole-grain options to better meet the nutritional needs of its participants.

THE CHALLENGE

The cost of certain foods can put healthier choices out of reach for many. Research has shown that on a per-calorie basis, high-calorie, low-nutrition “junk” foods tend to be less expensive than more nutritious foods such as fruits and vegetables. The cost of “junk” foods also has increased more slowly over time. Between 1985 and 2000, the real (inflation-adjusted) cost of fresh fruits and vegetables rose nearly 40 percent, while real cost of soft drinks, sweets, fats, and oils decreased in the United States. Particularly for those with limited food budgets, such as Supplemental Nutrition Assistance Program (SNAP) recipients, economically smart food choices and healthy food choices may conflict. Nationally, 2.4 million people rely on the SNAP program. In fiscal year 2008, the average number of participants per month in Mississippi’s SNAP program was 447,181.

Many of the federal food assistance and nutrition programs distribute surplus foods, which are not necessarily chosen for health benefits. Budget constraints can also necessitate the purchase and distribution of cheaper foods. Additionally, while farmers’ markets and small local businesses are allowed to take SNAP benefits, it is often not economically feasible for them to purchase and maintain the equipment required to do so.

More than 20 percent of U.S. SNAP participants live in rural communities. Making sure that locally grown foods are among those available through food assistance and nutrition programs would increase access to fresh, healthy foods and help rural communities create markets to support increased production of local foods.

The fact that SNAP benefits can be used to purchase nearly any food item—except alcohol, tobacco, and dietary supplements—including “junk” food has led to discussion of stricter regulations on SNAP spending. Further education on proper nutrition and healthy choices could also provide recipients more independence and useful knowledge, should benefits no longer be available.

A policy option to consider is to eliminate “junk food” as an approved purchase for SNAP recipients. An alternative policy option is to provide discounts to SNAP participants when purchasing healthy foods with public nutrition assistance benefits, encouraging people to make healthy choices.

MISSISSIPPI’S SUCCESS

On June 15, 2009, the Washington County, Mississippi, Health Department sponsored its first of many nutrition and physical activity classes for participants of federal assistance programs who were single heads of household and diabetic or at risk for diabetes. Classes were scheduled three days per week for two weeks. Participants who attended four of the six classes qualified for a free \$25 gift card to use at their local grocery. Topics for classes included diabetes and diabetes prevention, meal planning, incorporating physical activity into each day, grocery shopping, cooking, and reading food labels.

The National Food Service Management Institute and Department of Family and Consumer Sciences at the University of Mississippi are currently partners in *Eating Good... and Moving Like We Should*, a project funded by the Delta Health Alliance. The program teaches school staff, parents, and caregivers how to provide healthy foods to children. It teaches children to make healthy food choices based on their individual food and nutrition needs and encourages them to engage in a more active lifestyle. Nutrition counseling

with individual families is also provided. Topics discussed in counseling sessions include general nutrition principles that correlate directly to decreasing the risk of developing chronic diseases associated with obesity. Communication resources are provided for school and nutrition directors to present to teachers, parents, and food service staff.

At the close of the 2008-2009 school year, *Eating Good... and Moving Like We Should* had served more than 1,200 residents in Panola and Quitman counties. Preliminary results showed that 58 percent of the 561 children who participated in the program shared with their family what they had learned in the program, and 88 percent of the children surveyed said they had learned things in the program that will influence their eating habits as an adult.

Because of what they learned in the program, 53 percent of participants claimed they were decreasing the amount of food they were eating, and 65 percent of respondents reported they had increased their intake of fruits and vegetables. Seventy-seven percent of the children who participated in the survey said they either started

exercising or increased their physical activity after completing the curriculum.

Achieving remarkable results in the Mississippi Delta, the collaboration of partners has been the key to the program's success. The results are gratifying and confirm that nutrition education is a critical weapon in the fight against obesity and disease.



approximately
12.1%
of total food dollars are
spent on fruits and vegetables
by lower income families.
For those with income levels of
\$70,000 and above, this
percentage is only 8.7.

Policy Initiative No. 7

Restrict Advertising of Unhealthy Foods to Children and/or Require Public Service Announcements that Offer Healthy Messages

THE CHALLENGE

The prevalence of childhood obesity has been increasing over the years and the volume of media aimed at children through TV shows, videos, video games, computer activities, and web pages has steadily increased as well. The average time spent using media is 5.5 hours per day. Preschoolers who are six and younger will spend just as many hours with screen media as they spend playing outside.



Fast-food marketing is one contributor to obesity in children. American children see 27 food ads on TV for every public service announcement promoting healthy eating.

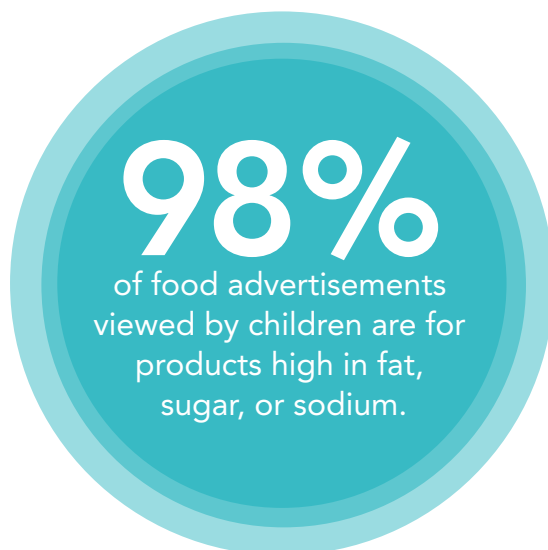
Over half of television advertisements directed at children promote candy, fast food, snacks, soft drinks, and sweetened breakfast cereals.

Research indicates that the amount of weekly television viewing by children is significantly related to their caloric intake as well as to their requests for and their parents' purchases of foods advertised on television. It is estimated that advertisers spend more than \$12 billion per year on advertising messages aimed at youth and that the average child watches more than 40,000 television commercials per year. Children under the age of eight are unable to critically comprehend televised advertising messages and are prone to accept advertiser messages as truthful, accurate, and unbiased, which can lead to unhealthy eating habits. A task force of the American Psychological Association recommended that advertising targeting children under the age of eight be restricted. Other suggested policy changes include the following:

- *A prohibition of food advertising in school-based TV programs such as Channel One*
- *A ban on advertising of "junk" food in children's programming*
- *The provision of equal time for messages on nutrition or fitness to counteract food ads in children's shows*
- *Broadcasting parental warnings about the nutritional value of advertised foods*
- *The development of programming that promotes healthy lifestyles*

NATIONAL SUCCESS

Four cities in West Virginia and the Centers for Disease Control and Prevention (CDC) participated in a pilot study that measured the cost-effectiveness of using various mass-media campaign strategies to promote a switch from milk with 2 percent fat to 1 percent or less. The media campaign titled 1% or Less was directed toward adults and children over the age of two, and it was intended to decrease the amount of saturated fat consumed in the population. Four different combinations of strategies were used in the four different towns over three consecutive years. Milk sales and telephone surveys conducted along the way and two years after the campaigns measured the effectiveness of each strategy. The results found that all campaigns effectively encouraged people to switch from high- to low-fat milk, but the most cost-effective was a combination of paid advertising (television, newspapers, and radio) reinforced by media relations (events designed to generate coverage by the local news) as was conducted in Wheeling, West Virginia. The campaign in Wheeling showed an increase of low-fat milk sales from 29 percent to 46 percent, a change that was sustained at



42 percent two years after the campaign ended. In addition, 34 percent of high-fat milk drinkers switched to low-fat milk, with a total cost of \$0.57 per person.

MISSISSIPPI'S SUCCESS

Since 2003, the Mississippi State Extension Service has partnered with Dr. Michelle Lombardo, co-founder of The OrganWise Guys, Inc. of Duluth, Georgia, to promote the benefits of good nutrition and preventive health care practices to elementary students. Award-winning, science-based, and curriculum-

linked, The OrganWise Guys resources engage children in grades K-5 with entertaining materials and activities that encourage students to adopt healthy lifestyle habits. This gives schools a great opportunity to market healthy choices in the classroom as well as the cafeteria. The OrganWise Guys' message—lowfat, high fiber, lots of water, and exercise—is incorporated in all subject areas of the curriculum. The students also engage with puppets that represent parts of the body and talk about how what they eat

affects their organs. Students take this message home and encourage their parents to also make healthy choices when preparing meals and grocery shopping.

Beverage companies and distributors across the state are also cooperating with schools to make appropriate changes to the images on the front of vending machines to reinforce healthy, active lifestyles, and/or a positive school climate.

A young boy with brown hair, wearing a red sweater, is lying on his stomach on a white surface, looking intently at a television. The television is a large, dark-colored CRT model. In the center of the image, there is a large teal circle containing white text.

121.5

hours of food ads
are viewed yearly
by children
ages 2-17.

Policy Initiative No. 8

Require Schools to Provide BMI (Body Mass Index) Reports to Parents

THE CHALLENGE

Body Mass Index (BMI) is a ratio of weight and height that also accounts for gender and age. A BMI assessment classifies a child as underweight, normal weight, overweight, or obese. It is a useful screening tool and a relatively efficient method for estimating rates of overweight and obese children.



At time of publication, 16 states screen students' BMI or fitness status and confidentially provide information to parents or guardians.

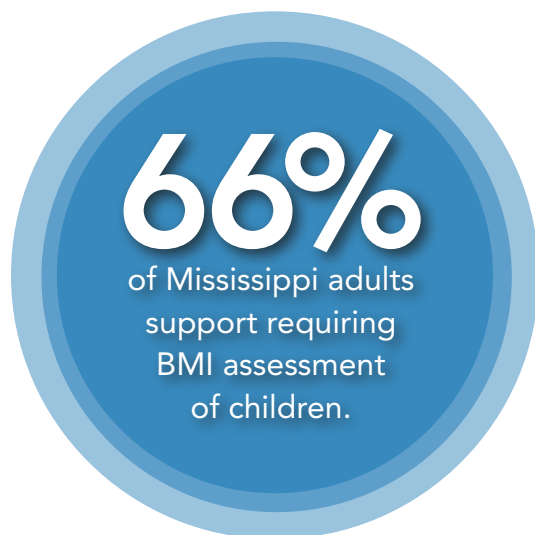
The CDC advises that to reduce the risk of harming students, BMI measurement programs should adhere to the following safeguards:

- *Introduce the program to school staff and community members and obtain parental consent.*
- *Train staff in administering the program (ideally, implementation will be led by a highly qualified staff member, such as the school nurse).*
- *Establish safeguards to protect student privacy.*
- *Obtain and use accurate equipment.*
- *Accurately calculate and interpret the data.*
- *Develop efficient data-collection procedures.*
- *Avoid using BMI results to evaluate student or teacher performance.*
- *Regularly evaluate the program and its intended outcomes and unintended consequences.*

NATIONAL SUCCESS

Arkansas pioneered the use of annual, confidential reporting of students' BMI to parents. The Arkansas Center for Health Improvement (ACHI) developed a system for gathering BMI assessments and delivering individualized, confidential Child Health Reports to parents of children in public schools. The first year data collection was a paper-based system, and ACHI eventually developed a web-based data entry system for schools to use. ACHI then took the electronic entry of data and automated generation of Child Health Reports statewide, eliminating dependence on paper exchange of information and reducing costs and potential error rates.

A number of concerns had been expressed about school-based BMI screening, including that it might stigmatize students, lead to harmful behaviors, could be ineffective, and distract attention from other school-based obesity prevention activities. In 2007, Arkansas modified state law to specify the protocol to be followed by school and nursing staff in performing the assessments. Now, parents are provided a way to opt out of the assessments in writing if they do not wish to have their children participate. The new protocol also reduces the frequency of assessments to biennially in even grades K-10.



The methods and charts used for calculating BMI in children ages 2 to 19 differ greatly from those used for adults. Children's measurements must take their continued growth into account.

Growth charts and BMI information for children can be found on the Centers For Disease Control and Prevention website www.cdc.gov/growthcharts/clinical_charts.htm



Policy Initiative No. 9

Improve Access to Supermarkets/Produce



Persons living in "food desert" counties in rural Mississippi were found to be 23.4 percent less likely to consume recommended amounts of fruits and vegetables.

THE CHALLENGE

Consumption of fruits and vegetables is an important component of a healthy diet. Only one in five Americans actually consumes the daily recommended level of five to nine servings of fruits or vegetables established by the Dietary Guidelines for Americans. Studies have demonstrated a relationship between low income and a poor diet. According to the Centers for Disease Control and Prevention, people with incomes of less than \$15,000 are the least likely to consume fruits or vegetables. Additionally, many low-income neighborhoods lack healthy, affordable retail food options, and purchasing healthy food often involves transportation that is inconvenient or unavailable to many residents.

Upper- and middle-income neighborhoods have about three times as many supermarkets per capita as do low-income neighborhoods, and often fast food chains and corner stores are the only sources of food in low-income neighborhoods. One of the barriers to healthy eating is the lack of convenient access to supermarkets and stores that have fresh fruits and vegetables. Supportive policies related to economic development, land use, water, and transportation can help. Strategies that increase access to healthy foods include the following:

- *Subsidizing supermarkets that will locate in low-income neighborhoods*
- *Creating economic stimulus programs and public private partnerships to promote the creation of farmers markets and the expansion of retail grocery operations in low-income neighborhoods*
- *Developing land-use policies and joint-use agreements that support the creation of community gardens in areas lacking supermarkets*
- *Developing transportation policies that ensure public transit can conveniently transport riders to supermarkets or farmers markets, and creating economic incentives for free or low-cost transportation*
- *Creating local zoning ordinances to support the development of mixed-use neighborhoods and the creation of small markets that offer healthy foods*

NATIONAL SUCCESS

In April 2003, Pennsylvania passed the nation's first statewide economic development initiative aimed at improving access to markets that sell healthy food in underserved rural and urban communities. The legislation was passed as a \$2.3 billion economic stimulus package and \$100 million of these funds were used for agriculture projects, including the development of grocery stores and farmers markets. During this time, Pennsylvania's governor also created an innovative new fund for the Fresh Food Financing Initiative, which supported the development of 10 new stores by offering an \$80 million financing pool for fresh food retailers that locate in underserved communities. The initiative provides a range of financing resources such as pre-development grants and loans, land acquisition and equipment financing, capital grants for project funding gaps and construction, and permanent financing. This pioneering program resulted in more than 65 grocery stores being built in low-income areas across the state, creating more than 3,700 jobs, and supplying spinach, tomatoes, and other healthy produce and foods to underserved areas.

Mississippi has the
second lowest rate
of fruit and vegetable
consumption in the nation.

1 in 5

Americans consume the daily recommended level of 5-9 servings of fruits and vegetables.

MISSISSIPPI'S SUCCESS

Mayor Chip Johnson of Hernando, Mississippi, has become a spokesperson for local government officials interested in improving the health of citizens. Under his leadership, Hernando is working toward the development of a healthier community by adding parks and other green spaces, as well as recreational equipment and programs. The city has also adopted design regulations that mandate sidewalks in all new and renovated developments to reduce barriers to walking for exercise and transportation. Hernando has just completed a round of sidewalk improvements that transformed old crumbling sidewalks into wide, safe, and accessible pedestrian ways. The city is also part of the DeSoto Greenways project, seeking to one day connect the city's greenways and sidewalks to a countywide and regionwide network of greenways and blueways.

Hernando also participated in the development of a successful local farmers market and developed a community garden. Both are designed to promote local, fresh, healthy eating and are located within walking distance of the most disadvantaged residents.



Policy Initiative No. 10

Require Labeling of Menus and Prepared Foods



Today, we spend almost half (46 percent) our food dollars at restaurants.

Adults and children are getting about a third of their calories from away-from-home foods.

Children eat almost twice as many calories when they eat a meal at a restaurant (770 calories) compared to a meal at home (420 calories).

THE CHALLENGE

Another area of recent interest as a potential strategy to reduce the obesity epidemic is the provision of nutritional information on restaurant menus and menu boards at fast food and full-service chain restaurants. Research has shown that the increase in obesity is associated with the increase in the consumption of restaurant foods over the past few decades. Additionally, increasing portions of food and beverages served at restaurants (e.g. “super-sizing”) has become more and more common in the United States. The restaurant industry is currently not mandated by federal regulation to provide calorie and other nutrition information with food served, in contrast to packaged food products sold in grocery stores and supermarkets. Two-thirds of the largest chain restaurants do not provide any nutrition information to their customers. Some restaurant chains offer information on their web sites, requiring consumers to read the information prior to their visit to the restaurant.

Today, we spend almost half (46 percent) our food dollars at restaurants. Adults and children are eating about a third of their calories from away-from-home foods. Research shows that children eat almost twice as many calories when they eat a meal at a restaurant (770 calories) compared to a meal at home (420 calories).

Most people significantly underestimate the caloric content of restaurant menu items and, could benefit from having information about calories, fat content, carbohydrates, etc., for menu items readily accessible.

Because menu labeling ordinances have only recently been adopted in some jurisdictions, there is little research published to document the possible impact of menu labeling on obesity.

NATIONAL SUCCESS

Recently, New York City became the first major city to implement a menu labeling ordinance that affects chains with 15 or more locations. Restaurants like Subway, Quizno’s, IHOP, and others are now posting calorie information on menu boards in at least some locations.

On September 30, 2008, California passed SB 1240 and became the first state in the U.S. to require nutrition labeling in restaurants. The legislation requires that restaurant chains with 20 or more locations must post calorie information on their menus and indoor menu boards by January 1, 2011. Beginning July 1, 2009, brochures containing either calorie content information or other nutritional information, such as grams of saturated fat, grams of carbohydrates, and milligrams of sodium, will be at the point of sale for consumers.

Maine legislation, HP 878, was passed in 2009 requiring a chain restaurant, a restaurant with 15 or more restaurants nationwide, to provide accurate calorie information on its menus, menu boards and food display labels for the food and beverage items it regularly sells. The bill also requires a chain restaurant

85%

of Mississippians support requiring restaurants to list nutrition information, such as calories, on menus.

to state on its menu and menu boards: “To maintain a healthy weight, a typical adult should consume approximately 2,000 calories per day; however, individual calorie needs may vary.” The legislation also allows a chain restaurant to state, “Nutrition information is based upon standard recipes and product formulations; however, modest variations may occur due to differences in preparation, serving sizes, ingredients, or special orders.”

MISSISSIPPI'S SUCCESS

In an attempt to facilitate

nutrition education, school menus including nutritional information are posted at the beginning of each serving line in all schools in the McComb, Mississippi, School District. Students and teachers take advantage of the useful information to make healthier choices from the day's offerings. In addition, the menu is posted on the school's website. At the bottom of each day's menu is a link to view nutrients. A click on

this link brings up a window with the nutritional analysis for that day's menu. This feature is not only helpful for teachers and students who are attempting to make healthier choices, it is also utilized by parents of children with diabetes and other health problems. The detailed analysis gives the parent the opportunity to review the menu in advance and guide the child in making the right choices for his/her dietary situation.

10

pounds a year are gained by eating just 100 extra calories every day.





56%

OF MISSISSIPPIANS THINK THAT
GOVERNMENT
SHOULD
PLAY A SIGNIFICANT ROLE IN
REDUCING OBESITY.

SEEKING ACTION

Each of Mississippi's state agencies assigned to the POWER project task force by Governor Haley Barbour have already committed to making a stand against childhood obesity. Each agency is developing action plans outlining their support and identifying the ways they will collectively address the ten policy priorities agreed upon by the stakeholders at the Healthy Mississippi Summit.

The following pages contain the action plans that have been submitted to date and represent only a portion of the actions being taken by all state agencies to prevent childhood obesity. Often by simply continuing their current ongoing projects and directing their existing resources toward a common goal, a diverse web of support is created through the collaboration of agencies. This support system forms a strong foundation to be further built upon, guaranteeing success. Through teamwork, the commitments are manageable, reasonable, and most importantly, effective when coordinated within the POWER project.

When planned and coordinated together, individual efforts will effectively isolate and surround each issue, tackling it from all sides at once, having a lasting life-saving impression on Mississippi.

Mississippi Department of Education

Agency Contact:

Shane McNeill

DIRECTOR OF THE
OFFICE OF HEALTHY
SCHOOLS

601.359.1737

ACTIONS

The Office of Healthy Schools will:

- Provide support for developing joint-use agreements between local school districts and community organizations to increase access to playgrounds, walking tracks, gymnasiums, parks and other facilities during and outside of the regular school day that promote healthy lifestyles and family/community involvement in the school setting
- Continue to provide technical assistance on playground development and safety to schools
- Continue to identify, secure, and award funds to local school districts as possible to support the implementation of combination oven steamers
- Continue to support policies that improve the nutritional quality of school meals
- Provide an annual report to the state legislature that explains the many responsibilities and services that school nurses provide to meet the needs of kids
- Continue to partner with the Mississippi Division of Medicaid to implement the Early, Periodic, Screening, Diagnosis, and Treatment Program (EPSDT/Cool Kids Program)
- Continue to collect data through the Committed to Move project
- Continue to provide support for comprehensive fitness testing that provides a broad assessment of fitness including body composition
- Continue to identify, secure, and award funds to local districts as possible to support the purchase of software and equipment necessary for conducting fitness testing
- Maintain partnership with the Mississippi State Extension Service to provide technical assistance and support to school districts when conducting fitness testing requirements.
- Partner with HeadStart, Department of Human Services, Division of Medicaid, and the Mississippi State Department of Health to provide training on the recently developed Birth to Five Benchmarks
- Provide technical assistance to the Building Blocks Pilot Program to support the implementation of health initiatives in the early childhood programs
- Continue to partner with the Mississippi Division of Medicaid and the Mississippi Department of Human Services to provide radio and television announcements that provide consistent messaging and support for healthy lifestyles
- Continue to work with the Beverage Association of Mississippi to change and create faceplates on vending machines in Mississippi public schools to promote healthy lifestyles and/or a positive school climate. Faceplates will include pictures promoting physical activity, hydration through consumption of water and/or other approved beverages, recycling, educational goals, and/or a school logo or mascot. The Beverage Association of Mississippi and the companies it represents are to be commended for this proactive approach to promote healthy lifestyles.

- Develop and disseminate a school health report card that provides a summary report of the implementation of school health programs
- Develop resources to support partnerships between schools and supermarkets (i.e. healthy scavenger hunts, healthy supermarket sweeps, coordinated vegetable-of-the-month promotions) to encourage purchasing of fresh fruits and vegetables and other healthy lifestyle choices
- Continue to provide resources for child nutrition programs to share school lunch and breakfast menus with parents and teachers for assisting children/students with making the healthiest choices
- Provide additional resources and support to teachers for instruction on reading and understanding the information provided on a food label, portion size, and the nutritional components of the meal

Mississippi State Department of Health

ACTIONS

Agency Contacts:

Victor Sutton
DIRECTOR OF
THE OFFICE OF
PREVENTIVE HEALTH
601.576.7781

The Mississippi State Department of Health will:

- Build capacity at the community level by establishing coalitions to address physical and nutritional activities. Collaboration with local communities via coalitions uses the power of numbers to accomplish more in addressing modifiable risk factors related to most chronic illnesses. The Chronic Disease Bureau supports coalitions in identifying strategies and implementing activities to reduce risk factors among the targeted population.
- Improve built environments to promote physical activity in local communities. MSDH's Delta Health Collaborative, Division of Injury and Violence Prevention, and the Bureau of Community and School Health are combining their resources and skills to target cities and towns in the Mississippi Delta. City and town officials, local businesses, community leaders, and local residents will be involved in conducting assessments of current built environment issues. Projects, programs, and/or policy and environmental changes will be suggested based on objective outcomes from the assessment, according to current best practices and empirical evidence for intervention.
- Continue to provide Bodyworks, an obesity prevention program for ages 9-12 and their caregivers to promote good nutrition, increased physical activity, and decreased screen time
- Implement interventions to address physical and nutritional activities in local communities. MSDH will identify, secure, and award funds to universities, civic organizations, and local community organizations to support the implementation of evidence-based interventions to reduce risk factors that are directly linked to most chronic diseases: physical inactivity, poor nutrition, and tobacco use. MSDH awarded funds to Jonestown Family Center for projects to increase the physical activity and health literacy of children, adolescents and adults in Jonestown, Mississippi.

- Collaborate with employers to promote worksite wellness programs to help employees develop healthy behaviors and lower their risk of developing chronic diseases. The MSDH Office of Preventive Health supports increasing access to physical activity and nutrition programs. The MSDH Office of Preventive Health Community and School Health Bureau is collaborating with state agencies to create active worksite wellness councils.
- Establish faith-based programs to assist congregational members in increasing their physical activity and eating more fruits and vegetables. The Office of Preventive Health collaborates with faith-based communities on ways to improve the health of their constituents through two programs. Congregational Health Nurses supports congregations with a registered nurse, to establish a health ministry to assist members with navigating the healthcare system. The Healthy Congregation Program provides technical assistance to congregations to improve the health of their communities.
- In addition to efforts to provide *Color Me Healthy Toolkits*, the MSDH and Mississippi Department of Human Services have formed a partnership to provide an additional 1,500 toolkits so every licensed childcare center will receive a toolkit and training to support implementation

Mississippi Department of Human Services

ACTIONS

Agency Contacts:

Cheryl Sparkman

DIRECTOR OF
THE DIVISION
OF ECONOMIC
ASSISTANCE

601.359.4809

The Division of Economic Assistance will:

- Promote healthy life choices within the MDHS county offices. Health-related information will be provided on-line for MDHS staff to access in the same way that policy information updates are currently provided. Staff will then distribute this information to their clients in the SNAP and TANF programs. New, relevant health information can be distributed through this system.
- Work with the Mississippi State Department of Health and Mississippi State University to provide health and nutrition-related training to the MDHS county directors, with the first training held October 3, 2009, in Meridian. All 82 county directors, as well as the seven regional directors and the majority of the a of Economic Assistance state office directors were included.
- Work with the Mississippi Department of Education and Mississippi State University Extension Service to provide nutrition education in Mississippi schools through the SNAP Ed Program

Mississippi Division of Medicaid

ACTIONS

Agency Contacts:

Phyllis Williams
DEPUTY DIRECTOR
FOR HEALTH
SERVICES

Frances Rullan
COMMUNICATIONS
601.359.6050

The Division of Medicaid will:

- Continue the Cool Kids program that is a free healthcare program for Mississippi's children ages birth to 21 who are eligible for Medicaid. It provides a way for children to get the medical exams, check-ups, follow-up treatment, and special care needed to enjoy the benefits of good health. It is sponsored by the Office of the Governor, Division of Medicaid, and is designed to pro-actively encourage healthier lifestyles for our children.
- Distribute "The Road to Good Nutrition for Everyone" and "The Road to Physical Activity" along with other literature to the 600,000+ Medicaid beneficiaries
- Continue airing healthier lifestyle radio announcements statewide in partnership with the Department of Education and the Department of Human Services

Mississippi State Department of Transportation

ACTIONS

Agency Contacts:

Cookie Leffler
SAFE ROUTES
TO SCHOOL
COORDINATOR
601.359.1454

The Mississippi State Department of Transportation will:

- Continue to award Safe Routes to School grants to enable and encourage kids to walk and bike to school safely
- Continue to award Transportation Enhancement funds to support bicycle and pedestrian projects that promote physical activity
- Support awareness campaigns, on the local level, centered around the built environment in Mississippi communities
- Provide funding through Safe Routes to School program to develop multi-media public awareness campaigns that promote physical activity and safety

Mississippi State Department of Wildlife, Fisheries, and Parks

ACTIONS

Agency Contacts:

Amanda Mills
SPECIAL PROJECTS
OFFICER & CO-HOST
OF MISSISSIPPI
OUTDOORS
601.432.2400

The Mississippi State Department of Wildlife, Fisheries, and Parks will:

- Continue to provide grants to city and county parks that promote physical activity such as unified signage or walking trails
- Continue to maintain and provide additional walking trails and areas in all Mississippi State Parks
- Continue to offer resources for teaching archery in schools
- Conduct Fishing Rodeos to encourage youth to engage in outdoor activities

*Appendix A- Participants at the April 25, 2008, Planning Meeting***Valerie Hawkins**

ALLIANCE FOR A HEALTHIER GENERATION

Wade Overstreet

BLUE CROSS & BLUE SHIELD OF MISSISSIPPI FOUNDATION

Anne Travis

BOWER FOUNDATION

John Sturdivant

BOWER FOUNDATION

Amy Radican-Wald

CENTER FOR MISSISSIPPI HEALTH POLICY

Cheri Simpson

CENTER FOR MISSISSIPPI HEALTH POLICY

Therese Hanna

CENTER FOR MISSISSIPPI HEALTH POLICY

Wesley Prater

CENTER FOR MISSISSIPPI HEALTH POLICY

Tom PittmanCOMMUNITY FOUNDATION OF
NORTHWEST MISSISSIPPI**Ellen Jones**

CONSULTANT

Johnny Franklin

GOVERNOR'S OFFICE

Dr. Ted Alexander

LOWER PEARL RIVER VALLEY FOUNDATION

Libby Lynch

MISSISSIPPI DIVISION OF MEDICAID

Donna West

MISSISSIPPI DEPARTMENT OF AGRICULTURE

Amanda Williams

MISSISSIPPI DEPARTMENT OF EDUCATION

Christine Philley

MISSISSIPPI DEPARTMENT OF EDUCATION

Dale Dieckman

MISSISSIPPI DEPARTMENT OF EDUCATION

Lea Ann McElroy

MISSISSIPPI DEPARTMENT OF EDUCATION

Mary Ann Simpkins

MISSISSIPPI DEPARTMENT OF EDUCATION

Shane McNeill

MISSISSIPPI DEPARTMENT OF EDUCATION

Carol ParkerMISSISSIPPI DEPARTMENT OF
FINANCE & ADMINISTRATION (INSURANCE)**Karen West**

MISSISSIPPI DEPARTMENT OF MENTAL HEALTH

Cookie LefflerMISSISSIPPI DEPARTMENT
OF TRANSPORTATION**Amanda Mills**MISSISSIPPI DEPARTMENT
OF WILDLIFE FISHERIES AND PARKS**Steve Martin**

MISSISSIPPI DEVELOPMENT AUTHORITY

Brent FountainMISSISSIPPI DIETETIC ASSOCIATION/
MISSISSIPPI STATE EXTENSION**Renee Stiefenhoefe**

MISSISSIPPI DIVISION OF MEDICAID

Kim Erickson

MISSISSIPPI FAMILY PHYSICIANS

Gwen WintersMISSISSIPPI STATE DEPARTMENT
OF HEALTH (CHILD & ADOLESCENT HEALTH)**Danita Munday**

MISSISSIPPI STATE DEPARTMENT OF HEALTH (FIRST STEPS)

Donna Speed

MISSISSIPPI STATE DEPARTMENT OF HEALTH (NUTRITION)

Victor SuttonMISSISSIPPI STATE DEPARTMENT
OF HEALTH (PREVENTIVE SERVICES)**Diana Tillaton**

MISSISSIPPI STATE DEPARTMENT OF HEALTH (WIC)

Joyal Mulheron

NATIONAL GOVERNORS ASSOCIATION

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